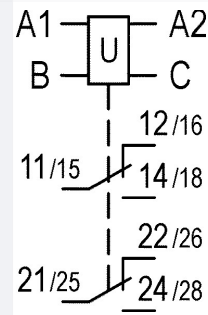




Voltage monitoring relay, 3 - 30, 5 - 60, 30 - 300, 60 - 600 V, 24 - 240 V AC, 50/60 Hz, 24 - 240 V DC

Part no. EMR6-VM600-A-1
Catalog No. 184784
Alternate Catalog No. EMR6-VM600-A-1
EL-Nummer (Norway) 4101980

Delivery program

Product range		EMR Measuring and monitoring relays
Basic function		Voltage monitor
Monitoring of		Overvoltage Undervoltage
Voltage measurement range	V	3 - 30 5 - 60 30 - 300 60 - 600
Contact sequence		
Supply voltage		24 - 240 V AC, 50/60 Hz 24 - 240 V DC
Width	mm	22.5

Technical data

General

Standards		UL508, CAN/CSA C22.2 No.14, GL, EAC, CCC, RMRS, RCM
Lifespan, mechanical	Operations x 10 ⁶	30
Climatic proofing		Damp heat, cyclical to IEC 60068-2-30: 24 h cycle, 55° C, 93% relative humidity, 96 h
Ambient temperature		
Operation	°C	
Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	+ 60
Storage	°C	- 40 - 85
Mounting position		As required
Shock resistance		Class 2
Degree of protection		
Terminals		IP20
Enclosures		IP50
Terminal capacities	mm ²	
Solid	mm ²	1 x 0.5-2.5 (1 x 18-14 AWG)
Flexible with ferrule	mm ²	2 x 0.5-1.5 (2 x 18-16 AWG)
Standard screwdriver	mm	5.5 x 0.8
Tightening torque	Nm	0.5 - 0.8
Fixing		Snap fixing, top-hat rail IEC/EN 60715
MTBF (mean time between failures)		393344 h

Contacts

Rated impulse withstand voltage	U _{imp}	V AC	4000
Overvoltage category/pollution degree			III/3

Power supply

Supply voltage			24 - 240 V AC, 50/60 Hz 24 - 240 V DC
Voltage tolerance		$\times U_c$	0.85 - 1.1
Power consumption		VA	2.6
Rated frequency	f	Hz	50 - 60
Duty factor		% DF	100

Timing cycle

Response delay time		s	Adjustable from 0.1 - 30
Reset delay/Off-delay time		s	Adjustable from 0.1 – 30

Measuring circuits

Response range for undervoltage	U_{min}	V AC	
Min. undervoltage response value		V AC	3
Max. undervoltage response value		V AC	600
Response range for overvoltage	U_{max}	V AC	
Min. overvoltage response value		V AC	3
Max. overvoltage response value		V AC	600
Hysteresis		%	3 ... 30

Status indication

Supply voltage			LED yellow
Output relay energized			LED yellow
Error			LED, red
Status indicator (LED)			Green, solid: Supply voltage Other states depending on fault (see IL): Measured value

Relay output contacts

Lifespan, electrical (AC-12/230 V/4 A)	Operations	$\times 10^6$	
Lifespan, electrical	Operations	$\times 10^6$	0.1

Electromagnetic compatibility (EMC)

Electromagnetic compatibility			IEC/EN 60947-6-2
ESD	Air/contact discharge	kV	IEC/EN 61000-4-2 level 3
HF-immunity to radiation			IEC/EN 61000-4-3 level 3
Burst			IEC/EN 61000-4-4 level 3
Surge			IEC/EN 61000-4-5 Level 4
HF-immunity to line-conducted interference			IEC/EN 61000-4-6 level 3

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.9 Insulation properties			
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.

Technical data ETIM 7.0

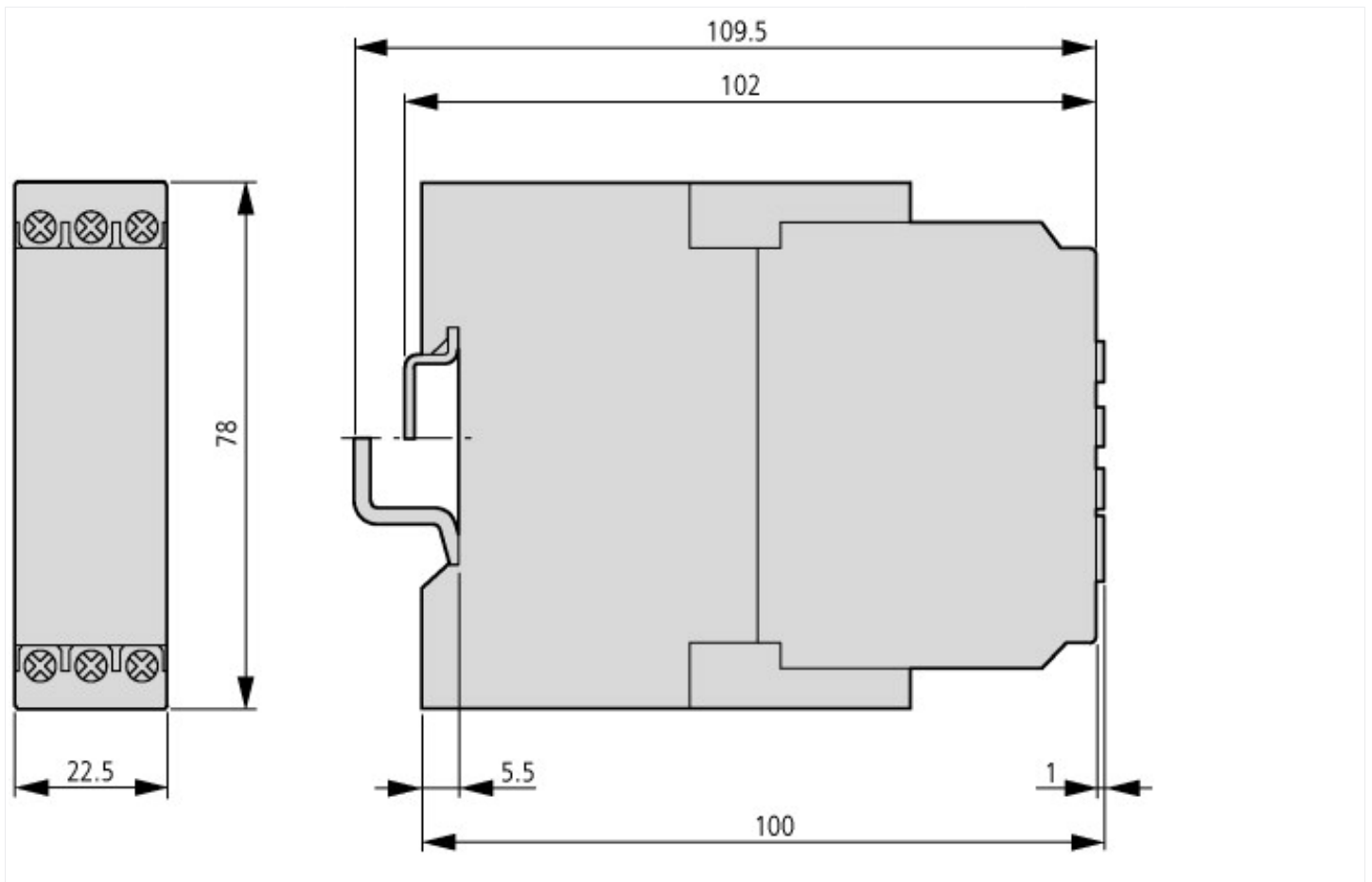
Relays (EG000019) / Voltage monitoring relay (EC001438)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Voltage monitoring equipment (ecI@ss10.0.1-27-37-18-01 [AKF095014])			
Type of electric connection			Screw connection
With detachable clamps			No
Single-phase under voltage possible			Yes
Three-phase under voltage possible			No
Single-phase over voltage possible			Yes
Three-phase over voltage possible			No
Single-phase hysteresis possible			No
Three-phase hysteresis possible			No
Contains function DC-under voltage			Yes
Contains function DC-over voltage			Yes

Contains function DC-voltage hysteresis		No
Voltage measurement range 1	V	3 - 600
Voltage measurement range 2	V	0 - 0
Type of voltage measurement range		AC/DC
Rated control supply voltage Us at AC 50HZ	V	24 - 240
Rated control supply voltage Us at AC 60HZ	V	24 - 240
Rated control supply voltage Us at DC	V	24 - 240
Voltage type for actuating		AC/DC
Response value voltage	V	3 - 600
Min. adjustable delay-on energization time	s	0.1
Max. permitted delay-on energization time	s	30
Min. adjustable off-delay time	s	0
Max. permitted off-delay time	s	0
Number of contacts as normally closed contact		0
Number of contacts as normally open contact		0
Number of contacts as change-over contact		2
Width	mm	22.5
Height	mm	85.6
Depth	mm	104.6

Approvals

Product Standards		IEC 255-6; UL 508; CSA-22.2 No. 14-05; CE marking
UL File No.		E29184
UL Category Control No.		NKCR, NKCR7
CSA File No.		UL report valid
CSA Class No.		3211-03
North America Certification		UL listed, certified by UL for use in Canada

Dimensions



Additional product information (links)

IL121013ZU Voltage monitoring relay	
IL121013ZU Voltage monitoring relay	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL121013ZU.pdf
IL121013ZU Voltage monitoring relay	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL121013ZU2018_07.pdf